

except that marked up versions are not being supplied for any added claim or canceled claim.

SUB
E3
D1

78. (amended) An integrated circuit comprising:

- a semiconductive substrate;
- a conductive node location disposed within the semiconductive substrate;
- a first layer disposed over the semiconductive substrate and in electrical contact with the conductive node, the first layer comprising at least one of iridium, rhodium, ruthenium, palladium, osmium, silver, alloy, IrO₂, RuO₂, RhO₂, or OsO₂; and
- a platinum alloy layer disposed over the first layer, the platinum alloy layer characterized by a continuous, roughened outer surface, the platinum alloy layer comprising platinum and at least one of rhodium, iridium, ruthenium, palladium, osmium or silver, and the roughened platinum alloy layer comprising columnar pedestal structures having heights greater than or equal to about one-third of a total thickness of the roughened platinum alloy layer.

SUB
E1
D2

83. (amended) The integrated circuit of Claim 78, the columnar pedestal structures having heights of at least 300Å.

84. (amended) The circuit of Claim 78, wherein the columnar pedestals terminate in dome-shaped tops.

Sub
P1
86. (new) The integrated circuit of Claim 65, where the columnar pedestals have an average diameter of at least about 200 Å.

87. (new) The integrated circuit of Claim 65, where the columnar pedestals have an average diameter of about 200 Å.

D3
88. (new) The capacitor of Claim 74, where the columnar pedestals have an average diameter of at least about 200 Å.

89. (new) The capacitor of Claim 74, where the columnar pedestals have an average diameter of about 200 Å.

90. (new) The integrated circuit of Claim 78, where the columnar pedestals have an average diameter of at least about 200 Å.

91. (new) The integrated circuit of Claim 78, where the columnar pedestals have an average diameter of about 200 Å.

92. (new) A capacitor comprising:

a first capacitor electrode over a monocrystalline silicon substrate;

a second capacitor electrode;

a dielectric layer between the first and second capacitor electrodes; and

at least one of the first and second capacitor electrodes comprising roughened platinum formed by a process comprising:

flowing an oxidizing gas into a reaction chamber;

flowing a platinum precursor into the reaction chamber and chemical vapor depositing roughened platinum from the platinum precursor over the substrate in the presence of the oxidizing gas, the roughened platinum having a continuous surface characterized by columnar pedestals; and

maintaining a temperature within the reaction chamber at from about 0°C to less than 300°C during the depositing.

93. (new) The capacitor of claim 92 wherein the oxidizing gas comprises at least one of O₂, N₂O, SO₃, O₃, H₂O₂, or NO_x, wherein x has a value of from 1 to 3.

94. (new) The capacitor of claim 92 wherein the platinum precursor comprises at least one of MeCpPtMe₃, CpPtMe₃, Pt(acetylacetonate)₂, Pt(PF₃)₄, Pt(CO)₂Cl₂, cis-[PtMe₂(MeNC)₂], or platinum hexafluoroacetylacetonate.

95. (new) The capacitor of claim 92 wherein the maintaining a temperature comprises maintaining the temperature at from about 220°C to about 280°C.

96. (new) The capacitor of claim 92 further comprising flowing at least one other metal precursor into the chamber in addition to the platinum precursor, and wherein the platinum is deposited as an alloy of platinum and the at least one other metal.
